CLAIMS:

1. A culturing system for caner cell colonies composed of a bottom layer having a thickness of 2.4 mm comprising a medium, a soft agar having a concentration of from 0.5% to 0.6%, and at least one substance selected from the group consisting of carcinogenic inducers and anti-carcinogenic agents; and a top layer having a thickness of 1.6 mm comprising a medium, a soft agar having a concentration of from 0.3% to 0.4%, and cells, the culturing system being prepared according to agar double layered culturing method.

2. The culturing system for caner cell colonies according to Claim 1, where said cells contained in the upper layer comprises mouse neonatal skin cell JB6 line.

3. A detection/analysis system for detecting cancer cell colonies utilizing a culturing system for caner cell colonies composed of a bottom layer having a thickness of 2.4 mm comprising a medium, a soft agar having a concentration of from 0.5% to 0.6%, and at least one substance selected from the group consisting of carcinogenic derivative substances and anti-carcinogenic agents; and a top layer having a thickness of 1.6 mm comprising a medium, a soft agar having a concentration of from 0.3% to 0.4%, and cells, the culturing system being prepared according to agar double layered culturing method,

said detection/analysis system comprising

an optical microscope for observing the cancer cell colonies cultured by the culturing system;

electric-data conversion means for converting an image from the optical microscope into an electric data; and

a computer system for processing the electric data converted by the electric data conversion means; wherein said computer system stores a program which converts the electric data into a gray scale, makes a calibration, and subtraction, converts the data into binary data through a single threshold value, to thereby analyze it for at least one item selected from the group consisting of presence or absence of colony(ies), number of colonies; and distribution of colonies.

4. The detection/analysis system for detecting cancer cell colonies according to Claim 3, wherein said computer system possesses the results of analysis of standard data obtained from any of known carcinogenic inducers, so that the results obtained in at least one substance selected from the group consisting of carcinogenic inducers and anti-carcinogenic substances are compared with the results of analysis of standard data obtained from any of known carcinogenic inducers.

5. The detection/analysis system for detecting cancer cell colonies according to Claim 4, wherein said known substance is selected from the group consisting of TPA, TNF-alpha, and

reactive oxygen species.

6. A detection/analysis method for cancer cell colonies utilizing the detection/analysis system according any one of Claims 4 to 6 comprising the following stages:

(A) selecting a substance having a carcinogenic function or an anti-carcinogenic function to prepare the culturing system;

(B) culturing cancer cell colonies within said culturing system under prescribed conditions for a prescribed time;

(C) sending a data of the cancer cell colonies cultured via the microscope and the electric data conversion means to the computer system as an electric data;

(D) making the sent electric data gray scale, calibration, and subtraction; and converting it into a binary data through a single threshold value, and analyzing it for at least one item selected from the group consisting of presence or absence of colony(ies), number of colonies; and distribution of colonies.

7. The detection/analysis method for cancer cell colonies according to Claim 6, wherein in the stage (A), the substance having a carcinogenic function or an anti-carcinogenic function is preferably a food or a substance originated from a food.

8. The detection/analysis method for cancer cell colonies according to Claim 6, wherein in the stage (B), the culturing conditions of the culturing system are preferably at a temperature of about 37 degree C, under 5% carbon dioxide gas atmosphere over a period of from 15 to 30 days.

9. The detection/analysis method for cancer cell colonies according to Claim 6, wherein in the stage (D), the analysis is executed by using an image analyzing software executed on this computer system to make a transparency of the agar gel uniform, to treat scattered light of the microscope to analyze at least one item selected from the group consisting of shapes, sizes, and number of the colonies, and size distribution thereof.

10. The detection/analysis method for cancer cell colonies according to Claim 9, wherein in the stage (D), an image differential treatment is carried out to distinguish the colonies from duct, that the spot having a long diameter/short diameter ratio not more than 1.6 is judged to be the cancer cell colony.